UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
TECHNOLOGY DEVELOPMENT AND APPLICATION, ECOLOGICAL SCIENCE
WASHINGTON, D.C.

and the

NEW JERSEY AGRICULTURAL EXPERIMENT STATION
COOK COLLEGE, RUTGERS UNIVERSITY
NEW BRUNSWICK, NEW JERSEY

and the

VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF SOIL AND WATER CONSERVATION
RICHMOND, VIRGINIA

# NOTICE OF RELEASE OF 'BAYSHORE' SMOOTH CORDGRASS

The United States Department of Agriculture, Soil Conservation Service: the New Jersey Agricultural Experiment Station: and the Virginia Department of Conservation and Recreation announce the naming and release of 'Bayshore' smooth cordgrass (Spartina alterniflora Loisel.)

Bayshore' smooth cordgrass is a salt tolerant perennial grass. Its culms are flexible and vary from 45 to more than 120 cm tall and to 1.25 cm in diameter. The leaves are flat, 30 to 50 cm long, and 47 to 143 mm wide, tapering to a long involute tip. Plants have creeping rhizomes that are firm and scaly and form extensive colonies. Seedheads are produced in September and October and are approximately 25-30 cm long. Spikes are oppressed, 5 to 15 cm long with spikelets that are flattened laterally and usually closely overlapping on one side of the continuous rachis.

The original plant was collected on a sandy shore along the Chesapeake Bay near Hillspoint, Dorchester County, Maryland. The single clone was increased vegetatively and assigned the number 421162 for identification during its extensive test period.

Bayshore was compared with 111 other smooth cordgrass accessions from 1979 to 1991. The collection area for these accessions included the Mid-Atlantic Coastal Plain from Massachusetts to Florida and along the coast of

Louisiana and Texas. Bayshore was found to be more cold tolerant than 32 of these and was the most vigorous of the survivors.

Three accessions that possessed the desired characteristics for revegetation and stabilization of tidal stream banks were selected for final evaluations. Bayshore and PI-421200 emerged as being the two top performers when evaluated for vigor, foliage abundance, ground cover, rhizome spread and rhizome production. Bayshore was selected for release over PI-421200 because of its consistency in exhibiting good performance for rhizome spread and rhizome production as well as its unique ability to grow and survive at lower elevations within the water during the initial establishment years. These data were collected from 35 tidal site plantings in four Mid-Atlantic coastal states.

The principle conservation use of Bayshore smooth cordgrass is to vegetate and stabilize tidal stream banks as well as to construct and restore wetlands. Bayshore is extremely salt tolerant. When used for tidal bank stabilization, it should be established between the mean low water level and the mean high water level. It is adapted to varying soils ranging from coarse sand to clay and muck and will grow exceptionally well in both brackish and fresh water environments. Bayshore produces an extensive network of rhizomes and roots that anchors firmly into the substrata, and its abundance of stems and leaves helps to dissipate wave energy. This process results in increased sand deposition which promotes vegetative expansion and raises the beach elevation. Bayshore does produce seed, but all commercial propagation will be vegetative. All propagation for testing or increase has also been by vegetative means. For establishment, both containerized and bare-root plants have been used. Containerized plants establish better than bare-root plants in tidal areas.

Tidal plantings of Bayshore smooth cordgrass should be established below plantings of 'Avalon' saltmeadow cordgrass (S. patens AIT. MUHL.) The natural habitat for Bayshore is the area between the mean low water and the mean high water elevation. Bayshore has been successfully established on tidal areas by planting a series of parallel rows on the beach below the mean high water elevation with several rows of Avalon saltmeadow cordgrass established adjacent to and above. Bayshore smooth cordgrass plants must be either grown in a saline environment or acclimated to salt before planting on a tidal area.

Field tests show Bayshore to be well adapted on tidal stream banks from New York to North Carolina. Adaptation further north has not been confirmed, however, such use is anticipated. Breeder culms of Bayshore will be maintained

and distributed by USDA SCS at the Cape May Plant Materials Center, 1536 Route 9 North, Cape May Court House, New Jersey 08210

James B. Hanson — 2/23/94

Director, Ecological Science Division
United States Department of Agriculture
Soil Conservation Service
Washington, D.C.

Date

Cecil B. Currin — 1/21/93

State Conservationist
United States Department of Agriculture
Soil Conservation Service
Somerset, New Jersey

Date

Dean J. Kunz — 2/4/93

Director
New Jersey Agricultural Experiment Station
Cook College, Rutgers University
New Brunswick, New Jersey

Date

Jack E. Frye — 2/7/94

Director
Commonwealth of Virginia
Department of Conservation and Recreation
Division of Soil & Water Conservation
Richmond, Virginia

Date